

TECHNICAL DATA SHEET (TDS)

P43 FIRE RATED PU FOAM

1 – DESCRIPTION

B1 FIRE RATED PU FOAM, is a single component, moisture curing, self-expanding, ready to use polyurethane foam with propellants which are completely harmless to ozone layer. It has a fire rating of up to 235 minutes in certain configurations. High quality PU straw foam recommended for sealing applications where fire resistance is required. It is designed for easy dispensing through the straw adapter included with each can.

2 – PROPERTIES

- According to EN 1366-4 fire retardant up to 235 min – see table enclosed.
- Efficient seal against smoke and gas.
- Does not contain CFC's and H-CFC's.
- Excellent adhesion & filling capacity.
- Excellent mounting capacity and stability.
- High yield up to 45 liters depending on temperature and humidity.
- Excellent adhesion on most substrates (except Teflon, PE and PP).
- High filling capacity.
- High thermal & acoustical insulation value.
- After cured, it can be painted, cut, trimmed.
- No shrinkage.
- Mould and water resistant.
- Conforms to fire class B1 (DIN 4102).
- Conforms to French A+
- Conforms to the requirements of VOC content specifications in LEED credit EQc4.1 “Low-emitting products” of SCAQMD rule 1168.

3 - APPLICATIONS

All applications where fire retardant properties are required such as:

- Installation of door and window frames.
- Filling and sealing gaps, joints and cavities.
- Filling of penetrations in walls.
- Heat insulation of roof construction.
- Sealing of cable and pipe penetrations.
- Soundproofing and sealing partition walls.
- Bonding of insulation materials.
- Multi-Purpose, adhesion and fixation.

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4 - INSTRUCTIONS

- Application surface must be free from dust and grease.
- During the application, the temperature of the can and the room temperature should be between +5 °C and +30 °C.
- To get the best result, the temperature of the can and the room temperature should be between +20°C and +25 °C.
- Shake the can well after screwing the adapter on the valve.
- Hold the can upside down and activate the foam by pressing the valve.
- Fill holes and cavities partially as the foam will expand.
- Moistening the surfaces before and after the application ensures faster curing and increase the bonding strength.
- Fresh foam can be removed using Akkim 800C Foam Cleaner. Cured foam can only be removed mechanically.

5- PACKAGING

Product	Weight	Package
P44 FIRE RATED PU FOAM	850gr	12

6- STORAGE AND SHELF LIFE

9 months if stored properly.

7- RESTRICTIONS

- To store above +25°C and below +5 °C shortens shelf life.
- The cans must be stored and transported in vertical position.
- To get best result, the cans should be kept in room temperature for at least 12 hours before the application.
- Cured foam will discolor if exposed to ultraviolet light. Paint or coat the cured foam for best results in outdoor applications.
- Working at lower temperatures would decrease foam yield and cause longer curing time.

8- SAFETY

- Contains Diphenylmethane-4,4'-Diisocyanate. Irritating to eyes, respiratory system and skin.
- Harmful by inhalation. Do not breathe spray/vapour. Use only in well-ventilated areas.
- Wear suitable protective clothing and gloves.
- Pressurized container. Keep away from direct sunlight and do not expose temperatures over 50°C.
- Keep away from sources of ignition.
- Keep out of the reach of children.

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9- TECHNICAL PROPERTIES

Basis	: Polyurethane Prepolymer		
Curing System	: Moisture cure		
Specific Gravity	: 22±3 Kg/cm ³		(ASTM D1622)
Tack-Free Time (1 cm width)	: 7±3 min		(ASTM C1620)
Cutting Time (1cm width)	: 30-45 min		(ASTM C1620)
Cure-Time	: 24 hours		
Foam Colour	: Grey		
Yield	: 30-45 L		(ASTM C1536)
Shrinkage	: 0 %		
Fire Class of the Cured Foam	: B1		(DIN 4102)
Thermal Conductivity	: 0,036 W/m.k (at 20°C)		(DIN 52612)
Compression Strength	: 0,03 MPa		(DIN 53421)
Water Absorption	: Max. 1 vol%		(DIN 53428)
Temperature Resistance	: -40°C to +90°C		
Application Temperature	: +5°C to +30°C		
Can temperature	: +5°C to +30°C		

The results were obtained by providing optimum environmental conditions.

Test Results –Yıldız Technical University; EN 1366-4

Wall Thickness	Joint Dimension	Backing Material	Fire Resistance in minutes
200mm	Width: 11 mm Depth: 200 mm	None	235 min. Fire rating EI 180
200mm	Width: 41 mm Depth: 200 mm	None	114 min. Fire rating EI 90
100mm	Width: 31 mm Depth: 100 mm	None	52 min. Fire rating EI 45
100mm	Width: 11 mm Depth: 100 mm	None	106 min. Fire rating EI 90

Test Results –Efectis ERA Global; EN 1366-4

Wall Thickness	Joint Dimension	Backing Material	Fire Resistance in minutes
200mm	Width: 11 mm Depth: 200 mm	None	217min. Fire rating EI 180
200mm	Width: 31 mm Depth: 200 mm	None	147 min. Fire rating EI 120
100mm	Width: 21 mm Depth: 100 mm	None	64 min. Fire rating EI 60
100mm	Width: 11 mm Depth: 100 mm	None	80 min. Fire rating EI 60